

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Mitsuru Kaneko )  
 )  
S.N.: unknown ) Examiner: Unknown  
 )  
Filed: ) Art Unit: Unknown  
 )  
For: Continuous Ceramic Composite )  
Plating Method And Apparatus )  
For Long Doctor Blade Materials )  
\_\_\_\_\_ )

Box Patent Application  
Hon. Commissioner of Patents  
Washington, D.C. 20231

Dear Sir:

Please amend the above-identified patent application prior to  
examination thereof in the manner indicated below.

PRELIMINARY AMENDMENT  
(37 C.F.R. §1.111)

IN THE SPECIFICATION:

Please amend the specification as follows, in accordance  
with 37 C.F.R. 1.121(a):

On page 1, before "1. Field of the Invention", insert

-- RELATED APPLICATIONS

This application is a divisional of Application Ser. No.  
09/469,555, filed December 22, 1999, which is a divisional of  
Application Ser. No. 08/964,246, filed November 4, 1997. --

IN THE CLAIMS:

Please cancel Claims 1-4 without disclaimer to their content as these claims were allowed in amended form in the parent application ser. no. 08/964,246.

Please also cancel Claims 5-6 without disclaimer to their content as these claims were allowed in divisional application ser. no. 09/469,555.

Please amend Claim 7 in accordance with 37 C.F.R. 1.121. A marked-up copy of the claim is attached herein on a separate sheet and a clean version of the claim is also attached herein on a separate sheet.

PLEASE ADD THE FOLLOWING NEW CLAIM:

Please add new Claim 8, which is attached herein on a separate sheet.

IN THE ABSTRACT:

Please delete the Abstract as filed and substitute therefor the enclosed ABSTRACT OF THE DISCLOSURE, which is submitted herewith on a separate sheet of paper in accordance with 37 C.F.R. §1.72.

Conclusion

A Notice of Allowance is earnestly solicited.

If the Office is not fully persuaded as to the merits of Applicant's position, or if an Examiner's Amendment would place

Country	Year	Value	Unit
Algeria	1990	1.00	1000
Algeria	1991	1.00	1000
Algeria	1992	1.00	1000
Algeria	1993	1.00	1000
Algeria	1994	1.00	1000
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Algeria	2077	1.00	1000

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MARKED-UP VERSION OF AMENDED CLAIM 7

7. (Amended) An apparatus for continuously producing baked long doctor materials comprising:

a plurality of pinch rollers for continuously forwardly straightening out long doctor materials plated [by the method according to claim 1 or claim 2 from the] ~~from a~~ take-up reel ~~by a method comprising a degreasing step, rinsing step, acid immersion, rinsing step, electroless ceramic composite nickel plating step, plating solution collection step, rinsing step, and drying step between a first step of supplying continuously a long doctor blade base material held on a material reel spirally while the blade surface is maintained in a horizontal direction with respect to the surface of the solution for uniformly plating the long doctor blade material wherein a higher concentration of a ceramic fine powder is deposited on a top surface of the long doctor blade material than a concentration of the ceramic fine powder deposited on the lower surface of the long doctor blade material, and a final step of taking up continuously the blade base material on the corresponding take-up reel while the blade base material is cramped by a plurality of pinch rolls;~~ and

a straightening furnace for baking through which the straightened plated blades pass.

CLEAN VERSION OF AMENDED CLAIM 7

7. (Amended) An apparatus for continuously producing baked long doctor materials comprising:

a plurality of pinch rollers for continuously forwardly straightening out long doctor materials plated from a take-up reel by a method comprising a degreasing step, rinsing step, acid immersion, rinsing step, electroless ceramic composite nickel plating step, plating solution collection step, rinsing step, and drying step between a first step of supplying continuously a long doctor blade base material held on a material reel spirally while the blade surface is maintained in a horizontal direction with respect to the surface of the solution for uniformly plating the long doctor blade material wherein a higher concentration of a ceramic fine powder is deposited on a top surface of the long doctor blade material than a concentration of the ceramic fine powder deposited on the lower surface of the long doctor blade material, and a final step of taking up continuously the blade base material on the corresponding take-up reel while the blade base material is cramped by a plurality of pinch rolls; and

a straightening furnace for baking through which the straightened plated blades pass.

NEW CLAIM 8

8. An apparatus for continuously producing baked long doctor materials comprising:

a plurality of pinch rollers for continuously forwardly straightening out long doctor materials plated from a take-up reel by a method comprising a degreasing step, rinsing step, acid immersion, rinsing step; electroless ceramic composite nickel plating step, plating solution collection step, rinsing step, and drying step between a first step of supplying continuously a plurality of long doctor blade base materials held on a plurality of material reels spirally while the blade surfaces are maintained in a horizontal direction with respect to the surface of the solution and a predetermined interval therebetween is maintained for uniformly plating the plurality of long doctor blade materials wherein a higher concentration of a ceramic fine powder is deposited on a top surface of each of the plurality of long doctor blade materials than a concentration of the ceramic fine powder deposited on the lower surface of each of the plurality of long doctor blade materials, and a final step of taking up continuously the plurality of doctor blade base materials on a plurality of corresponding take-up reels while the plurality of blade base materials are cramped by a plurality of pinch rolls; and

a straightening furnace for baking through which the straightened plated blades pass.

## ABSTRACT OF THE DISCLOSURE

A continuous ceramic composite plating apparatus for producing long doctor materials having pinch rollers for continuously straightening out long doctor materials plated from a take-up reel(s) by a method comprising a degreasing step, rinsing step, acid immersion, rinsing step, electroless ceramic composite nickel plating step, plating solution collection step, rinsing step, and drying step between a first step of supplying continuously the long doctor blade base materials held on the reels spirally while the blade surface is maintained in a horizontal direction with respect to the surface of the solution for uniformly plating the long doctor blade material wherein a higher concentration of a ceramic fine powder is deposited on a top surface of the long doctor blade material, and a final step of taking up continuously the blade base material(s) on the corresponding take-up reel(s); and a straightening furnace for baking through which the straightened plated blades pass.